shallow soil. The slopes and summits of the Sierra Madre Occidental are covered by forest in which several species of pine are dominant. The narrow canyons on the Pacific slopes of the Sierra Madre are occupied by a forest of evergreen oaks and other evergreen or deciduous broad-leaved trees. In their physiognomy the types of vegetation resemble those of southeastern Arizona and southwestern New Mexico. The flora of northern Chihuahua is very similar to that of the adjacent parts of New Mexico and Texas, but in each of the types of vegetation there is a strong infusion of endemic or southern species not found in the United States.

Desert Laboratory,
Carnegie Institution of Washington,
Tucson, Arizona, July, 1938.

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NOTES ON THE GENUS CEANOTHUS IN CALIFORNIA

H. E. McMinn

In several genera of California shrubs such as *Rhamnus, Ceanothus, Baccharis* and *Arctostaphylos,* there are species which vary in their habit of growth from tall and erect to low, spreading, decumbent, or prostrate. The low-growing forms of some of these species are very desirable as ornamentals, especially as ground-covers. In some instances there is at present little evidence for the separation taxonomically of the prostrate, decumbent, and sprawling forms from the erect forms. In others, however, where observations on transplants have been made it seems clear that the low growth-forms which usually inhabit coastal bluffs and adjacent wind-swept mountains are genetically distinct from the erect plants which grow farther inland or away from the effects of the winds from the ocean. One of these forms having retained its low-growing habit in cultivation for over three years is here described as a new variety.

Ceanothus papillosus var. **Roweanus** var. nov. Frutex compactus, sempervirens, 3–9 dm. altus (vel inter alios frutices), usque ad 1.5 m. in latitudine 1.2–2 m.; ramis arcuatis, ramulis aliquanto horizontalibus; foliis anguste oblongis vel linearibus, 1.2–4.5 cm. longis, 2–8 mm. latis, pinnate nervatis, supra atroviridibus, glabris, dense glanduloso-papillatis, subtus dense lanato-papillatis, marginibus revolutis et glanduloso-papillatis, sessilibus vel brevipetiolatis; flores fructusque ut ei apud speciem.

Compact evergreen shrub, 3 to 9 dm. high (or up to 1.5 m. in competition with other shrubs) and with a spread of 1.2 to 2 m.; branches arched and in somewhat horizontal sprays; leaves narrowly oblong or linear, 1.2 to 4.5 cm. long, 2 to 8 mm. wide, pinnately veined, upper surface dark green, glabrous, densely glandular-papillate, lower surface densely woolly-hirsute, the margins revolute and glandular-papillate, sessile or short-petiolate; flowers and fruit as in the species.

Type. Summit of Mount Tranquillon, northwestern Santa Barbara County, California, altitude 2250 feet, March 27, 1938, *M. Van Rensselaer 450* (University of California Herbarium no. 600030). Capsules were collected at the same locality by E. D. Rowe July 7, 1938.

This variety, to my knowledge, occurs only in a small area in the vicinity of the type locality. Its spreading habit, compact branching, dark green papillate leaves, and dark blue flowers borne in great profusion make it a most desirable ornamental. Specimens which have been in cultivation for over three years at La Purisima Mission Gardens and at the Blaksley Botanic Garden have retained the low spreading habit whereas transplanted specimens and plants grown from seeds of *Ceanothus papillosus* Torr. & Gray taken from the Santa Cruz Mountains have maintained the erect habit of growth.

I take pleasure in naming this variety in honor of Mr. E. D. Rowe, who first called it to the attention of botanists in 1935. Mr. Rowe, now in charge of the planting at La Purisima Mission, has been in landscape gardening work in Santa Barbara for the past thirty years and has done much to foster an interest in a wide use of native shrubs as ornamentals.

For the past ten years I have been interested in studying the distributional range of another group of *Ceanothi* which have been variously referred to *Ceanothus cuneatus* Nutt., *C. rigidus* Nutt., or *C. cuneatus* var. *ramulosus* Greene. These shrubs occur in dry rocky or more usually in sandy situations in the Coast Ranges from Santa Barbara County (La Purisima Hills and Burton Mesa, near Lompoc) northward to southern Monterey County and in Santa Cruz and Marin counties. Around Monterey Bay they are replaced by *C. rigidus* Nutt. Since these plants are intermediate between *C. cuneatus* and *C. rigidus* and are not associated geographically with either species it seems best for the time being to consider them as specifically distinct. An emended description follows.

Ceanothus ramulosus (Greene) McMinn comb. nov. *C. cuneatus* var. *ramulosus* Greene, Fl. Fran., 86. 1891. Coast Ceanothus.

Shrub, 6 to 12 dm. high; branches spreading or arching, or sometimes procumbent; leaves opposite and evergreen, usually not crowded on the branchlets; the blades variable in shape but

typically obovate to oblanceolate, sometimes nearly round, 6 to 20 mm. long, 3 to 9 mm. wide, light to dark green above, paler beneath, usually toothed near the truncate or rounded apex, often entire, nearly sessile; flowers lavender, blue, or nearly white, in small peduncled umbels; fruit globose, about 5 mm. in diameter, varying from prominently 3-horned to nearly hornless. February to April.

On the bluffs above Point Sal, Santa Barbara County, this species is procumbent to nearly prostrate. On Burton Mesa and on La Purisima Hills, Santa Barbara County, the plants have dark compact foliage and in this character they resemble plants of *C. rigidus* more closely than those of *C. cuneatus*. The leaves are often cuneate-oblong and the fruits are often nearly hornless. Plants from seeds collected in Marin County and grown in our trial garden with *C. rigidus* and *C. cuneatus* show the distinct long-arching type of branches and pale blue or lavender flowers characteristic of the parent plant.

Mills College, California,
November 18, 1938.

TWO MEXICAN SPECIES OF HYPTIS

Carl Epling

Amongst a recent shipment of Mexican Labiatae collected by Mr. George C. Hinton in the states of Guerrero and Mexico are two undescribed species of *Hyptis*. Both are referable to the section *Buddleioides* subsection *Umbellatae*. As judged from the herbarium specimens both are lovely.

Hyptis perpulcher sp. nov. per specim. in Mexico prov. Temascaltepec ad Pungarancho in colle a Hinton (no. 8574) lectum constituta est; typum in herb. Univ. Calif. (Los Angeles), isotypum in herb. Kew. vidi.

Herba suffruticosa fragrantissima perpulcher ut videtur caulibus ad 4 m. altis solum superne inter flores visis purpureis glaucis ramulis superne hirtellis; foliorum laminis cordatis 12–15 cm. diametro (? et ultra) petiolis 5 cm. longis elatis, in apice acuminatis, marginibus irregulariter crenato-serratis, paginis ambobus glabris solum subtus ad venas obscure hirtellis; floribus numerosis parvis in umbellis purpureis pedunculis .5–1 cm. longis elatis bracteis parvis linearibus subtentis in paniculis speciosis gracillimis dispositis, pedicellis maturis filiformibus 7–8 mm. longis superne incrassatis elatis; calycibus florentibus anguste turbinatis 3 mm. longis extus dense purpureo-pubescentibus, dentibus deltoideis circiter .5 mm. longis, in maturitate tubo 7.5 mm. longo subcylindrato dentibus vix mutatis conniventibus; corollarum caerulearum tubo 2.5 mm. longo.

Mexico: Mexico; Temascaltepec; ad Pungarancho in colle.